

REMARKS

Claim 1 is pending in the present application. As a preliminary matter, although not addressed by the Examiner, it is believed the amendment was accepted by the Examiner regarding the correction of return path repeater systems to return path system repeaters. Furthermore, 6 new claims have been added. Each new claim is directly or indirectly dependent on claim 1 and as such should be allowable in view of the following arguments. Full support exists in the specification for each of the new claims.

Applicant has carefully studied the outstanding Office Action. The present Response is intended to be fully responsive to all points of rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of this application are respectfully requested. No new matter has been added by any of the amendments to the specification. Applicant respectfully requests reconsideration and withdrawal of the Examiner's rejections in view of the following remarks and arguments.

CLAIM REJECTIONS – 35 U.S.C. § 103(a)

Claim 1

The Examiner rejected claim 1 under 35 U.S.C. §103(a), as being unpatentable over Dharia et al, U.S. Publication No. 2002/0123337, and further in view of Thorburn et al, U.S. Patent No. 6,898,428. The Examiner has stated:

Dharian [sic] discloses a system for data transmission and reception comprising (abstract):

a wireless data broadcast system broadcasting outgoing data from a data network to a plurality of users, the wireless data broadcast system further comprising (Fig. 1, element 123, 101, 111-n, MS):

a wireless data return path system receiving incoming data from the plurality of users and providing the incoming data to the data network, the wireless data return path system further comprising (page 1, [0005]; Dharian [sic] teaches an up link and down link for receiving and sending traffic between users and BTS);

one or more wireless collector systems receiving data from a predetermined set of the plurality of users (page 1, [0005]; Dharian [sic] teaches the use of collectors to broadcast traffic);

Although the system disclosed by Dharian [sic] shows substantial features of the claimed invention, it fails to disclose:

one or more wireless broadcast repeaters and one ore [sic] more return path repeater systems receiving data from one or more predetermined wireless collector

systems; and
wherein the system uses terrestrial line-of-sight broadcasting in conjunction with
satellite data transmission systems.

In support of the 103(a) rejection, the Examiner points to analogous art, Thorburn:

However, in an analogous art, Thorburn teaches:

one or more wireless broadcast repeaters (Fig. 4d and col. 4, lines 42 – 49) and one ore [sic] more return path repeater systems receiving data from one or more predetermined wireless collector systems (Fig. 4j and col. 5, lines 17 – 25); and

wherein the system uses terrestrial line-of-sight broadcasting in conjunction with satellite data transmission systems (abstract, Fig. 1, col. 2, line 52 – col. 3, line 46).

Given the teachings of Dharian [sic] and Thorburn, a person having ordinary skill in the art at the time of the invention would have recognized the desirability and advantages of adding repeaters and using terrestrial line-of-sight broadcasting in conjunction with satellite in order to increase reliability.

Applicant notes that Examiner has failed to establish a *prima facie* case of obviousness.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). To establish a *prima facie* case, the Examiner must show three things. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, all the claim limitations must be shown in the prior art reference or references. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Here, the burden on the Examiner to establish a *prima facie* case of obviousness has not been satisfied.

First, the Examiner has vaguely identified a source for motivation to combine the references. "There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obvious was held improper.). The level of skill in the art cannot be relied upon to provide the suggestion to combine references. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999).

Here, the Examiner relies on the fact that "a person having ordinary skill in the art at the time of the invention would have recognized the desirability and advantages of adding repeaters and using terrestrial line-of-sight broadcasting in conjunction with satellite in order to increase

reliability.” As addressed later, the present application uses technology derived from satellite communication, not actual satellites. In order to meet the burden of establishing a *prima facie* case of obviousness, the Examiner’s must provide a more thorough explanation of why terrestrial line-of-sight broadcasting in conjunction with satellite technology (not satellites) should be combined with Dharia.

Furthermore, Dharia and Thorburn are not even analogous art. Dharia discloses a system for wireless terrestrial networks. On the other hand, Thorburn fails to use any terrestrial wireless network. Rather, Thorburn disclose a “SATELLITE COMMUNICATION SYSTEM” that interfaces with a wired network. The two fields of endeavor, satellite communication systems and land-based wireless communication system, are not analogous and therefore should not combined without a specific teaching in the references or suggestion in the problem to be solved.

Second, there is no reasonable expectation of success. It is impossible to combine the teachings of Thorburn and Dharia to create a working system. As an example, the Examiner asserts that Thorburn shows “one or more wireless broadcast repeaters (Fid. 4d and col. 4, lines 42 – 49).” However, the use of the satellite 10 as a wireless broadcast repeater is unnecessary and unreasonable. If the satellite as disclosed in Thorburn were used in the Dharia system, it would be used to wirelessly “repeat” the signal from a user to a base transceiver station. However, a base transceiver station (BTS) as claimed in Dharia serves a very limited area. Satellite communication would be impracticable in terms of both the power required to communicate between the user and the BTS and also unnecessary as satellite communication is for communicating when traditional line-of-sight transmissions are blocked by curvature of the Earth. A cellular user would have to output a significant amount of power in order to use a satellite “repeater,” more power than a cellular phone is practically capable of outputting. Therefore, the suggestion that Dharia and Thorburn can be combined successfully is not supported by either the references nor common sense.

Third, even if there was a reasonable expectation of success, Dharia and Thorburn fail to teach each and every element of the claimed invention.

“one or more wireless broadcast repeaters and one or more return path system repeaters receiving data from one or more predetermined wireless collector systems;”

Thorburn fails to show one or more return path system repeaters receiving data from one or more predetermined wireless collector systems. As claimed, the “return path system repeaters” are distinct from the “wireless collector systems.” Assuming, *arguendo*, the satellite 10 of Thorburn is a “return path system repeater,” Thorburn still fails to show “one or more predetermined wireless collector systems.” Thorburn shows the satellite, or “return path system repeater” for purposes of this analysis, receiving data from “subscribers” in the exemplary figure. Subscribers are similar to the users of the present system, and are therefore vastly different than the claimed wireless collector systems.

Furthermore, although described as a “repeater” in the Thorburn application, the satellite actually implements a relay system. A relay system simply relays the signal from the receiver to the transmitter. In the Thorburn system, a relay is necessary because there is no line-of-sight between the gateway and the subscribers. In the present application, the broadcast repeaters actually boost and retransmit the signal at a more appropriate frequency/power level to allow the end users to receive the signal (“Broadcast repeater 310A is a transposer that receives the incoming carrier wave on antenna 504 at frequency F1 and converts the frequency to F2 for transmission to the user or distributor 506 using antenna 502.” para. [0032] of the present application). As shown in Thorburn Figure 4d, the “repeater” of Thorburn just acts a switch/multiplexer and does not have any power boosting components incorporated therein. This supports the Applicant’s contention that Thorburn discloses a relay, although referred to as a “repeater” in Thorburn. Therefore, Thorburn fails to disclose “one or more wireless broadcast repeaters.”

“wherein the system uses terrestrial line-of-sight broadcasting in conjunction with satellite data transmission systems”

Thorburn also fails to teach this element. Although Thorburn teaches the use of satellite data transmission systems, it does not teach **terrestrial line-of-sight** broadcasting. Terrestrial line-of-sight broadcasting requires that both the ends of the transmission are located terrestrially, i.e. on the Earth. Thorburn teaches **satellite line-of-sight** broadcasting. As such, in the present application, paragraph [0040], Applicant explains that “satellite data transmission systems” means the use of technology normally associated with satellite systems, not necessarily satellites themselves:

“The transmit path to users can utilize satellite data transmission technology in a terrestrial environment (i.e. surface line-of-sight broadcast) to broadcast voice data, video data, packet data, and other suitable data at more than 100 Mbps, such as by using an omnidirectional antenna, towards users in a multicast process.”

Therefore, Thorburn fails to show a system that uses “terrestrial line-of-sight broadcasting.”

For the reasons set forth above, Examiner has not met their burden in establishing a *prima facie* case of obviousness. If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985). The Applicant suggests the Examiner withdraw the rejection and allow the claim.

CONCLUSION

It is respectfully urged that the subject application is patentable over references cited by Examiner and is now in condition for allowance. Applicant requests consideration of the application and allowance of the claims. If there are any outstanding issues that the Examiner feels may be resolved by way of a telephone conference, the Examiner is cordially invited to contact David W. Carstens at 972.367.2001.

The Commissioner is hereby authorized to charge any additional payments that may be due for additional claims to Deposit Account 50-0392.

Dated this 28th day of February, 2006.

Respectfully submitted,

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